

# Notice of Allowability

Application No.

09/377,447

Examiner

James H Zurita

Applicant(s)

BEZOS ET AL.

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## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-54, 56 and 57.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 20041105.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ron Schoenbaum on 22 October 2004.

The application has been amended as follows:

#### In the claims

1. A method of assisting users in selecting items from an electronic catalog of items, the catalog accessible to users of an online sales system that provides services for allowing users to purchase items from the catalog, the method comprising:

providing a database which contains information about a plurality of user communities, wherein different communities represent different subsets of users of the sales system;

tracking, via computer, online purchases of items from the sales system by the users to generate purchase history data, and storing the purchase history data in a computer memory;

processing, via computer, at least the purchase history data to identify at least one item which, based on actions of both members and non-members of a selected community of said plurality of user communities, has a popularity level that is

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substantially greater within the selected community than outside the selected community;

and

electronically notifying users that the at least one item is popular within the selected community to assist users in selecting items from the electronic catalog.

2. The method of Claim 1, wherein electronically notifying users comprises generating a Web page which includes a community-based most popular items list.

3. The method of Claim 2, wherein the most popular items list is a bestsellers list.

4. The method of Claim 1, wherein electronically notifying users comprises automatically generating and sending an email message to members of the selected community.

5. The method of Claim 4, wherein the email message contains contact information of at least one member of the community that has purchased an item described in the email message.

6. The method of Claim 1, wherein processing the purchase history data to identify at least one item comprises identifying a set of characterizing purchases for the community.

7. The method of Claim 1, wherein the community is an implicit membership community.

8. The method of Claim 7, wherein the community is based on email addresses of users.

9. The method of Claim 1, wherein the community is an explicit membership community.

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10. The method of Claim 1, wherein the community is derived from an electronic address book of a user.

11. The method of Claim 1, wherein the community is a composite community which comprises multiple other communities of the database.

37. The method as in Claim 1, wherein processing the purchase history data comprises excluding, substantially, from consideration purchase history data falling outside a selected look-back period, so that calculated item popularity levels strongly reflect current interests of users.

12. A system for assisting users of an online sales system in selecting items from an electronic catalog of items, the system comprising:

at least one electronic database which contains purchase history data for users of the sales system, and which contains information about a plurality of user communities wherein different communities represent different subsets of users of the sales system; and

a computer system that executes a process which analyzes at least the purchase history data to identify items that have substantially higher popularity levels within particular communities of the plurality of communities relative to their respective popularity levels among a general user population, and which notifies users of the sales system of the items and associated communities for which such popularity level disparities exist, to thereby assist such users in selecting items from the electronic catalog.

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13. The system of Claim 12, wherein the process comprises a first process which generates a table which contains bestselling items lists for at least some of the communities, and

a second process which selects items from the table to display to users.

14. The system of Claim 12, further comprising a user interface which allows users to select and join at least some of the user communities.

15. The system of Claim 12, further comprising a user interface which allows a user to define a composite community that includes multiple communities of the database, and to initiate generation of a popular items list for the composite community.

16. The system of Claim 12, wherein at least some of the communities are implicit membership communities.

17. The system of Claim 12, wherein at least some of the communities are based on email addresses of users.

18. The system of Claim 12, wherein at least some of the communities are based on electronic address books of the users.

19. The system of Claim 12, wherein the process generates and displays community bestsellers lists for at least some of the communities.

20. The system of Claim 12, wherein the process compares a popularity of an item within a community to a popularity of the item among non-members of the community.

21. The system of Claim 12, wherein the process sends to the users notification emails that include descriptions of the items that are popular within particular communities.

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22. The system of Claim 21, wherein at least some of the notification emails include contact information of users that have purchased items described therein.

23. The system of Claim 21, wherein at least some of the notification emails specify a level of acceptance an item has attained within a particular community.

24. The system of Claim 12, wherein the process identifies items that are have substantially higher popularity levels within particular communities by at least identifying a set of items purchased by members of a community that distinguishes the community from a general user population.

25. The system of Claim 24, wherein the process uses a censored chi-square algorithm to identify the set of items.

38. The system as in Claim 12, wherein the computer process excludes, substantially, from consideration purchase history data falling outside a selected look-back period.

26. A method of assisting users in selecting items from an electronic catalog of items, the catalog accessible to users of an online sales system that provides services for allowing users to purchase items from the catalog, the method comprising steps, each step performed by computer, of:

identifying a subset of users of the online sales system that have email addresses that satisfy a particular criterion, wherein the subset comprises a plurality of users;

identifying at least one item that characterizes the subset of users, wherein the step of identifying comprises

processing purchase history data of the subset of users and of users falling outside said subset; and

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electronically notifying users of the online sales system of a relationship between the at least one item and the subset of users, to assist users in selecting items from the electronic catalog.

27. The method of Claim 26, wherein identifying a subset of users comprises identifying all users having a selected domain name within their respective email addresses.

28. The method of Claim 27, wherein the selected domain name is a domain name of a selected company.

29. The method of Claim 26, wherein identifying a subset of users comprises identifying all users that have one of a selected group of domain names within their respective email addresses.

30. The method of Claim 26, wherein electronically notifying comprises generating a Web page which includes a list of items that characterize the subset of users.

31. The method of Claim 26, wherein electronically notifying comprises sending email notification messages to at least some of the users of the subset.

39. The method as in Claim 26, wherein identifying at least one item that characterizes the subset of users comprises comparing a popularity level of the item among the subset of users to a popularity level of the item among a general population of users.

40. The method as in Claim 26, wherein identifying at least one item that characterizes the subset of users comprises identifying a set of items that distinguish the subset from a general population of users.

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41. The method as in Claim 40, wherein identifying a set of items that distinguish the subset from a general population of users comprises applying a censored chi-square type algorithm to the purchase history data.

42. The method as in Claim 26, wherein identifying at least one item that characterizes the subset of users comprises at least one of comparing a velocity of an item within the community to a velocity of the item within a general user population; and comparing an acceleration of the item within the community to an acceleration of the item within a general population.

32. A method of assisting users in selecting items from a catalog of items, comprising:

electronically identifying a subset of a general population of users;

tracking, via computer, at least one type of user activity that indicates user affinities for particular items of the catalog to generate activity history data;

processing, via computer, the activity history data of the general population of users, including the subset of users, to identify a set of items that distinguish the subset from the general population; and

electronically notifying users of the catalog of a relationship between the set of items and the subset of users, to thereby assist the users of the catalog in selecting items therefrom.

33. The method of Claim 32, wherein processing the activity history data comprises processing purchase history data, and the set of items consists essentially of items purchased by members of the subset.

34. The method of Claim 32, wherein tracking at least one type of user activity comprises tracking item viewing events.



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35. The method of Claim 32, wherein processing the activity history data comprises applying a censored chi-square algorithm to the activity history data.

36. The method of Claim 32, wherein the subset consists of members of an implicit-membership community.

43. A method of assisting users in selecting items from an electronic catalog of items, comprising:

electronically identifying, among a population of users of the electronic catalog, a subset of users that, based on user shipping addresses, reside in a common geographic region;

electronically monitoring actions of the subset of users, and of users falling outside the subset, to generate user activity history data reflective of user actions performed with respect to items in the electronic catalog;

electronically processing the user activity history data to identify an item whose popularity level among the subset of users is substantially higher than a popularity level of the item among the population of users; and

electronically notifying at least one user that a relationship exists between the item and the geographic region to assist the at least one user in selecting items from the electronic catalog.

44. The method as in Claim 43, wherein processing the user activity history data to identify an item whose popularity level among the subset of users is substantially higher than a popularity level of the item among the population of users comprises at least one of (a) comparing a velocity of the item within the subset to a velocity of the item within a

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general user population; and (b) comparing an acceleration of the item within the subset to an acceleration of the item within a general user population.

45. The method as in Claim 43, wherein processing the user activity history data to identify an item whose popularity level among the subset of users is substantially higher than a popularity level of the item among the population of users comprises applying a censored chi-square type algorithm to the user activity history data.

46. The method as in Claim 43, wherein notifying at least one user comprises presenting to the user a list of items that are popular in the geographic region relative to popularity levels outside the region.

47. The method as in Claim 43, wherein the user actions performed with respect to items in the electronic catalog comprise item purchases.

48. The method as in Claim 43, wherein the user actions performed with respect to items in the electronic catalog comprise item viewing events.

49. The method as in Claim 43, wherein the geographic region corresponds to a particular city.

50. The method as in Claim 43, wherein processing the user activity history data comprises applying a time window to the user activity history data such that a popularity level of the item is measured substantially from a most recent set of the user activity history data.

51. A computer-implemented method of assisting users in selecting items from an electronic catalog of items, the method comprising:

storing email addresses of users of the electronic catalog;

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electronically identifying, for each of a plurality of organizations, a respective group of said users who are deemed to be affiliated with the respective organization by virtue of a domain name of the respective organization occurring within an email address of each such user, to thereby identify a plurality of organization-specific groups of users;

electronically tracking at least one type of user activity that indicates user affinities for particular items in the electronic catalog to generate activity history data for the users;

electronically analyzing, for each organization-specific group of users, the activity history data to generate a list of items within the electronic catalog that distinguish the organization-specific group from a general population of the users, to thereby generate a plurality of organization-specific popular items lists; and

electronically exposing the organization-specific popular items lists to the users of the electronic catalog in association with the organizations to which such popular items lists correspond, to allow users to identify items that are popular within specific organizations.

52. The method as in Claim 51, wherein exposing the organization-specific popular items lists to the users comprises providing to a target user a personalized web page that displays organization-specific popular items lists of organizations with which the target user is affiliated.

53. The method as in Claim 51, wherein analyzing the activity history data comprises excluding, substantially, from consideration activity history data falling outside a selected look-back period.

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54. The method as in Claim 51, wherein analyzing the activity history data comprises applying a censored chi-square type algorithm to the activity history data.

55. (Canceled)

56. The method as in Claim 51, wherein at least some of the organizations are companies.

Claim 57 has been amended as follows:

~~A computer system that embodies the method of claim 54 to~~

57. A system for assisting users in selecting items from an electronic catalog of items, the system comprising:

at least one electronic database which contains email addresses of users of the electronic catalog; and

a computer system that executes a computer program to

identify, for each of a plurality of organizations, a respective group of said users who are deemed to be affiliated with the respective organization by virtue of a domain name of the respective organization occurring within an email address of each such user, to thereby identify a plurality of organization-specific groups of users;

track at least one type of user activity that indicates user affinities for particular items in the electronic catalog to generate activity history data for the users;

analyze, for each organization-specific group of users, the activity history data to generate a list of items within the electronic catalog that distinguish the

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organization-specific group from a general population of the users, to thereby generate a plurality of organization-specific popular items lists; and  
expose the organization-specific popular items lists to the users of the electronic catalog in association with the organizations to which such popular items lists correspond, to allow users to identify items that are popular within specific organizations;

### **Reasons for Allowance**

Claims 1-54 and 56-57 are allowed.

The following is an examiner's statement of reasons for allowance for independent claims 1, 12, 32, 26, 43, 51 and 57.

Applicant's remarks in his Appeal Brief under 37 CFR 1.192, filed on 17 November 2003, and in his Supplemental Appeal Brief under 37 CFR 1.93(b)(2)(ii) filed on 17 May 2004 are compelling and commensurate with both the original disclosure and the claims as amended.

### Claims 1, 12 and 32

**Regarding claim 1:** The prior art of record neither anticipates nor fairly and reasonably teaches method that includes, *inter alia*, the steps of processing, via computer, at least the purchase history data to identify at least one item which, based on actions of both members and non-members of a selected community of said plurality of user communities, has a popularity level that is substantially greater within the selected community than outside the selected

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community; and notifying, electronically, users that the at least one item is popular within the selected community to assist users in selecting items from the electronic catalog.

**Regarding claim 12:** claim 12 recites a system that closely parallels the recitations of claim 1.

**Regarding claim 32,** the prior art of record neither anticipates nor fairly and reasonably teaches method that includes, *inter alia*, the steps of processing, via computer, the activity history data of the general population of users, including the subset of users, to identify a set of items that distinguish the subset from the general population; and notifying, electronically, users of the catalog of a relationship between the set of items and the subset of users, to thereby assist the users of the catalog in selecting items therefrom. The method comprises method steps that are consistent with steps recited in claim 1.

#### Claim 26

The prior art of record neither anticipates nor fairly and reasonably teaches the combination of steps of identifying a subset of users of the store that have *email* addresses that satisfy a particular criteria, wherein the subset comprises a plurality of users; identifying at least one item that characterizes the subset of users, wherein the step of identifying comprises processing purchase history data of the subset of users and of users falling outside said subset; and electronically notifying users of the online sales system of a relationship between the at least one item and the subset of users, to assist users in selecting items

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from the electronic catalog. The method comprises method steps that are consistent with steps recited in claim 1.

#### Claim 43

The prior art of record neither anticipates nor fairly and reasonably teaches the combination of steps of electronically identifying, among a population of users of the electronic catalog, a subset of users that, based on user shipping addresses, reside in a common geographic region; electronically processing the user activity history data to identify an item whose popularity level among the subset of users is substantially higher than a popularity level of the item among the population of users; and electronically notifying at least one user that a relationship exists between the item and the geographic region to assist the at least one user in selecting items from the electronic catalog. The method comprises method steps that are consistent with steps recited in claim 1.

#### Claims 51 and 57

The prior art of record neither anticipates nor fairly and reasonably teaches the steps of storing email addresses of users of the electronic catalog; electronically identifying, for each of a plurality of organizations, a respective group of said users who are deemed to be affiliated with the respective organization by virtue of a domain name of the respective organization occurring within an email address of each such user, to thereby identify a plurality of organization-specific groups of users; electronically tracking at least one type of

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user activity that indicates user affinities for particular items in the electronic catalog to generate activity history data for the users; electronically analyzing, for each organization-specific group of users, the activity history data to generate a list of items within the electronic catalog that distinguish the organization-specific group from a general population of the users, to thereby generate a plurality of organization-specific popular items lists; and electronically exposing the organization-specific popular items lists to the users of the electronic catalog in association with the organizations to which such popular items lists correspond, to allow users to identify items that are popular within specific organizations. The method comprises method steps that are consistent with steps recited in claim 1.

**Regarding claim 57:** Claim 57 recites a system that closely parallels the recitations of claim 51.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statements for Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H Zurita whose telephone number is 703-605-4966. The examiner can normally be reached on 8a-5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wynn Coggins can be reached on 703-308-1344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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J2  
**James Zurita**  
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**Art Unit 3625**  
3 January 2004

  
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